

What is claimed is:

1. An optical glass wherein an amount of change in refractive index (Δn : difference in refractive index between a state before radiation and a state after radiation) caused by radiation of laser beam at wavelength of 351nm having average output power of 0.43W, pulse repetition rate of 5kHz and pulse width of 400ns for one hour is 5 ppm or below..

2. An optical glass as defined in claim 1 comprising a fluorine ingredient and/or a titanium oxide ingredient and/or an arsenic oxide ingredient.

3. An optical glass as defined in claim 2 comprising, in mass %, a total amount of 0.1 - 45% of F in one or more fluorides as the fluorine ingredient and/or 0.001 - 0.5% of TiO_2 as the titanium oxide ingredient and/or 0.001 - 1% of As_2O_3 as the arsenic oxide ingredient.

4. An optical glass as defined in claim 3 comprising, in mass %,

| | |
|----------------|----------|
| SiO_2 | 40 - 70% |
|----------------|----------|

| | |
|--------------|----------|
| PbO | 14 - 50% |
|--------------|----------|

Na_2O and/or K_2O in the total amount of 8 - 17%

where

| | |
|-----------------------|---------|
| Na_2O | 0 - 14% |
|-----------------------|---------|

and

| | |
|----------------------|---------|
| K_2O | 0 - 15% |
|----------------------|---------|

| | |
|------------------------|--------|
| B_2O_3 | 0 - 5% |
|------------------------|--------|

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|-------------------------|--------|
| As_2O_3 | 0 - 1% |
|-------------------------|--------|

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|-------------------------|--------|
| Sb_2O_3 | 0 - 1% |
|-------------------------|--------|

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|----------------|--------------|
| TiO_2 | 0 - 0.2% and |
|----------------|--------------|

fluoride or fluorides substituting for the above oxide or oxides partially or entirely, a total amount of F contained in the fluoride or fluorides being 0 - 2%.

5. An optical glass as defined in claim 3 comprising, in mass %,

| | |
|--|----------|
| SiO ₂ | 30 - 70% |
| B ₂ O ₃ | 3 - 20% |
| Al ₂ O ₃ | 0 - 6% |
| Li ₂ O | 0 - 5% |
| Na ₂ O + K ₂ O + BaO + ZnO in the total amount of 10 - 45% | |

where

| | |
|-------------------|---------|
| Na ₂ O | 0 - 13% |
| K ₂ O | 0 - 12% |
| BaO | 0 - 42% |

and

| | |
|--------------------------------|------------|
| ZnO | 0 - 7% |
| PbO | 0 - 2% |
| TiO ₂ | 0 - 0.5% |
| As ₂ O ₃ | 0 - 1% |
| Sb ₂ O ₃ | 0 - 1% and |

fluoride or fluorides substituting for the above oxide or oxides partially or entirely, a total amount of F contained in the fluoride or fluorides being 0 - 11%.

6. An optical glass as defined in claim 4 comprising, in mass %,

| | |
|-------------------|--------|
| Li ₂ O | 0 - 2% |
| CaO | 0 - 2% |
| SrO | 0 - 2% |
| BaO | 0 - 5% |

Al_2O_3 0 - 2%

the total amount of one or more of the Li_2O , CaO , SrO , BaO and Al_2O_3 ingredients being 5% or below.

7. An optical glass as defined in claim 5 comprising, in mass %,

CaO 0 - 2%

SrO 0 - 2%

ZrO_2 0 - 2%

the total amount of one or more of the CaO , SrO and ZrO_2 ingredients being 2% or below.

8. An optical glass as defined in claim 3 comprising, mass %,

P_2O_5 4 - 39%

Al_2O_3 0 - 9%

MgO 0 - 5%

CaO 0 - 6%

SrO 0 - 9%

BaO 0 - 10%

$\text{Y}_2\text{O}_3 + \text{La}_2\text{O}_3 + \text{Gd}_2\text{O}_3 + \text{Yb}_2\text{O}_3$ in the total amount of 0 - 20%

Where

Y_2O_3 0 - 10%

La_2O_3 0 - 10%

Gd_2O_3 0 - 20%

and

Yb_2O_3 0 - 10%

TiO_2 0 - 0.1%

SnO_2 0 - 1%

As_2O_3 0 - 0.5%

Sb_2O_3 0 - 0.5%

| | |
|----------------|----------|
| AlF_3 | 0 - 29% |
| MgF_2 | 0 - 8% |
| CaF_2 | 0 - 27% |
| SrF_2 | 0 - 27% |
| BaF_2 | 10 - 47% |
| YF_3 | 0 - 10% |
| LaF_3 | 0 - 10% |
| GdF_3 | 0 - 10% |
| LiF | 0 - 3% |
| NaF | 0 - 1% |
| KF | 0 - 1% |

the total amount of F in one or more of the fluorides being 10 - 45% and
the total amount of one or more of MgF_2 , CaF_2 , SrF_2 and BaF_2 being 30 - 70%.